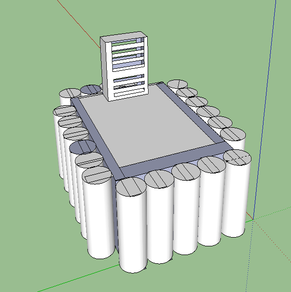
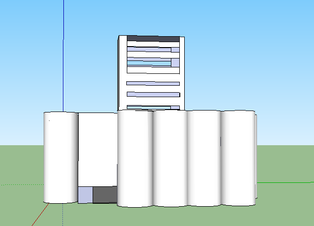
**Screenshots For My Ark...**

Below is a birds eye veiw of my arc. The cylinders on the side are where my 1.4 billion people stay. The main body is where we keep all of the things we need to take for Discovery and Technology. The box at the top of the arc is the VIP room. It's not really a room, more of a hotel. It is designed to hold anyone who wants to pay.



This photo shows the cylinders, the VIP room and the doorway. Don't forget the main body aswell.

**Design Brief for my ark...**

|  |  |
| --- | --- |
| Name: | Discovery and Technology |
| Length of main body:  Length of each cylinder:  Length of VIP room: | 943.384615384 meters  219.692307692 meters  411.815384615 meters |
| Height of main body:  Height of each cylinder:  Height of VIP room: | 560 000 000 meters  560 000 000 meters  483.323076923 meters |
| Width of main body:  Width of each cylinder:  Width of VIP room: | 1 410.33846154 meters  219.692307692 meters  175.753846154 meters |
| Volume of main body:  Volume of each cylinder:  Volume of VIP room: | 745 075 299 976 658.0987455616 meters  27 028 237 633 060.38532544384 meters  34982024.24 meters |
| Number of passengers: | 1.4 billion people |
| Cargo: | See list at the top of the page |
| Landing system: | The cylinders used for the people we are taking with us have boosters below them.  They will be used for blast off from Earth and to slow ourselves down when we come to Aurora56z. |
| Materials used for main body: | Aerogel |
| Materials used for heat shield: | Aerogel |
| Any other notes: | I used the ratio of 1 : 86.1538461528 |

**Cylinder Height**:

On the side of my ark, I have 21 cylinders. They are designed for the 1.4 billion people that I have to take. So I have figured out the average size of the human race, converted it to meters, and divided it by 21 as there are 21 cylinders. The answer for that (rounded up to the million) is 134 million. That means that I would need 134 million meters in each cylinder. But I want some room for these people. So I timed 134 million by 5 which was 560 million. I will need 560 million meters per cylinder.

**Cylinder Width**

To figure out the width of the cylinders I figured out what the ratio was. It is 86.1538461538. I figured that out by getting the height of the cylinder on Google Sketchup which is 6.44 , I then divided it by 560 million. The answer was 86.1538461538 which means my ratio is 1 : 86.1538461538 .

So I found out the width of the cylinder on Google Sketchup (2.55) and I multiplied it by 86.1538461538 and got 219.692307692

That means that each cylinder's width is 219.692307692 meters.

**Cylinder Length:**

The cylinder length is the same as the cylinder width as they are perfect circles. That means that each cylinder length is 219.692307692 meters.

**Cylinder Volume:**

To figure this out, I will use the formulae of W x L x H = V, here goes... 219.692307692 x 219.692307692 x 560000000 = 27028237633060.38532544384

Therefore the volume of each cylinder is 27028237633060.38532544384 meters.

**Height of Main Body:**

To find the height of the main body, I realised that the cylinders were the same height as the main body so I just copied the answer from there! The height of the main body is 560 million meters.

**Width of Main Body:**

To figure out the width of the main body, I multiplied 16.37 by 86.1538461538 which answered to 1410.33846154 therefore the width of the main body is 1410.33846154 meters.

**Length of Main Body:**

I multiplied 10.95 by 86.1538461538 which is 943.384615384

That means that the length of the main body is 943.384615384 meters.

**Volume of Main Body:**

The formulae for this is W x L x H = V...

1410.33846154 x 943.384615384 x 560000000 = 745075299976658.0987455616

The volume of the main body is 745075299976658.0987455616 meters.

**VIP Room Height:**

With the height of the VIP room, I found the height on Google Sketchup (5.61) and multiplied it by 86.1538461528 which equalled 483.323076923

That means that the height of the VIP room is 483.323076923.

**VIP Room Width:**

I timed 2.04 by 86.1538461528 and I got 175.753846154

The width of the VIP room is 175.753846154 meters.

**VIP Room Length:**

86.1538461538 x 4.78 = 411.815384615. The length of the VIP room is 411.815384615 meters.

**VIP Room Volume:**

The formulae to find out the volume of something is W x L x H = V.

That means that the sum was 175.753846154 x 411.815384615 x 483.323076923 = 34982024.24

That means that the volume of the VIP room is 34982024.24 meters.